

XA-9627  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Naoki YADA et al.

Appln. No.:

Filed: Herewith

For: MICROCOMPUTER, PROGRAMMING METHOD AND ERASING METHOD

\* \* \*

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified patent application as indicated below.

IN THE CLAIMS:

Please amend Claims 3, 5 and 9 as set forth below.

- 1        3. (Amended) The microcomputer according to claim 1,
- 2        further including second register means (FKEY) readable and
- 3        writable by said CPU, and

4 wherein said non-volatile memory sets the setting of a  
5 second set value to said second register means as a necessary  
6 condition for enabling erase and programming operations, and  
7 said CPU sets a value other than the second set value to  
8 said second register means upon said branch and sets the  
9 second set value to said second register means for each return  
10 from the branch.

1 5. (Amended) The microcomputer according to claim 1,  
2 further including an interrupt control circuit for inputting  
3 an interrupt request signal therein, and performing  
4 arbitration of interrupt requests which compete with one  
5 another, and an interrupt priority level-based interrupt mask  
6 process to thereby output an interrupt signal to said CPU, and  
7 wherein said CPU causes said interrupt control circuit to  
8 carry out a setting for masking an interrupt lower in  
9 interrupt priority level than a non-maskable interrupt.

1 9. (Amended) The microcomputer according to claim 7,  
2 further including a RAM disposed in an address space of said  
3 CPU, and

4 wherein said non-volatile memory has a transfer control  
5 program for transferring the erase and program control program  
6 to said RAM, and said CPU sets parameters for said another  
7 process to the erase and program control program transferred  
8 to said RAM, based on the set value of the first register  
9 means and thereby executes the erase and program control  
10 program.

Please add the following claims:

1 40. (New) The microcomputer according to claim 2,  
2 further including second register means (FKEY) readable and  
3 writable by said CPU, and  
4 wherein said non-volatile memory sets the setting of a  
5 second set value to said second register means as a necessary  
6 condition for enabling erase and programming operations, and  
7 said CPU sets a value other than the second set value to  
8 said second register means upon said branch and sets the  
9 second set value to said second register means for each return  
10 from the branch.

1       41. (New) The microcomputer according to claim 40,  
2 wherein the value other than the second set value is code  
3 information indicative of the progress of an erase and program  
4 process.

1       42. (New) The microcomputer according to claim 2,  
2 further including an interrupt control circuit for inputting  
3 an interrupt request signal therein, and performing  
4 arbitration of interrupt requests which compete with one  
5 another, and an interrupt priority level-based interrupt mask  
6 process to thereby output an interrupt signal to said CPU, and  
7 wherein said CPU causes said interrupt control circuit to  
8 carry out a setting for masking an interrupt lower in  
9 interrupt priority level than a non-maskable interrupt.

1       43. (New) The microcomputer according to claim 42,  
2 wherein said CPU executes a process for changing the location  
3 of an interrupt process routine for a non-maskable interrupt  
4 request to an address of a RAM upon execution of the erase and  
5 programming.

1           44. (New) The microcomputer according to claim 8,  
2 further including a RAM disposed in an address space of said  
3 CPU, and  
4           wherein said non-volatile memory has a transfer control  
5 program for transferring the erase and program control program  
6 to said RAM, and said CPU sets parameters for said another  
7 process to the erase and program control program transferred  
8 to said RAM, based on the set value of the first register  
9 means and thereby executes the erase and program control  
10 program.

REMARKS

Claims 3, 5, and 9 have been amended to avoid the multiple dependent claim surcharge. Claims 40-44 presented herein correspond to the dependencies eliminated from the amended claims.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees that may be required by this paper and to credit any overpayment to that Account.

Respectfully submitted,

MWS:sjk

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MARKED-UP VERSION OF THE CLAIMS:

1           3. (Amended) The microcomputer according to claim 1 [or  
2    2], further including second register means (FKEY) readable  
3    and writable by said CPU, and  
4           wherein said non-volatile memory sets the setting of a  
5    second set value to said second register means as a necessary  
6    condition for enabling erase and programming operations, and  
7           said CPU sets a value other than the second set value to  
8    said second register means upon said branch and sets the  
9    second set value to said second register means for each return  
10   from the branch.

1           5. (Amended) The microcomputer according to claim 1 [or  
2    2], further including an interrupt control circuit for  
3    inputting an interrupt request signal therein, and performing  
4    arbitration of interrupt requests which compete with one  
5    another, and an interrupt priority level-based interrupt mask  
6    process to thereby output an interrupt signal to said CPU, and

7       wherein said CPU causes said interrupt control circuit to  
8   carry out a setting for masking an interrupt lower in  
9   interrupt priority level than a non-maskable interrupt.

1           9. (Amended) The microcomputer according to claim 7 [or  
2   8], further including a RAM disposed in an address space of  
3   said CPU, and

4       wherein said non-volatile memory has a transfer control  
5   program for transferring the erase and program control program  
6   to said RAM, and said CPU sets parameters for said another  
7   process to the erase and program control program transferred  
8   to said RAM, based on the set value of the first register  
9   means and thereby executes the erase and program control  
10   program.